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Rhubarb Production

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U. S. DEPARTMENT OF AGRICULTURE

RHUBARB PRODUCTION

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History and Importance

Rhubarb, often referred to as pieplant, is thought to be a native of southern Siberia. It was introduced into the United States late in the eighteenth century and soon became a popular garden vegetable. Although it is not considered an important vegetable crop, the aggregate acreage of rhubarb in market and truck gardens is large, and it is common to find fields of 20 acres or more in some sections. Rhubarb is one of the most popular home-garden perennials and is found in a great many gardens in regions adapted to its culture.

Climatic Adaptation

Rhubarb is a cool-weather plant that thrives only in regions where the winters are sufficiently cold to freeze the ground to a depth of at least 3 or 4 inches. It is not adapted to regions of low elevation much south of the latitude of Washington. [illegible] but in mountainous sections its culture is successful south [illegible]. Attempts to grow rhubarb in the low South almost invariably end in disappointment. The New England States, the region bordering the Great Lakes, the northern Great Plains States, and the Pacific Northwest are especially adapted to rhubarb culture, and in these regions it grows to perfection.

Poisonous Qualities of Rhubarb Leaves

The succulent acid leafstalks of rhubarb make most excellent sauces and pies, and the question often arises about the use of the leaf blades for greens. Numerous cases of more or less serious illness and some fatalities have been reported in both Europe and North America from eating rhubarb leaves. These leaf blades were eaten boiled in the belief that they were a suitable substitute for the common greens but *owing to the high content of oxalic acid and its soluble salts found in rhubarb leaves it is recommended that they be left entirely alone and not used under any circumstances as food.* In the stalks, however, the oxalic acid is present in smaller amount and largely in insoluble form, and for this reason is harmless.

Soil, Fertilizer, and Manure

Rhubarb will thrive on almost any type of soil from peat or sand to heavy clay, provided it is well drained; rhubarb grows best, however, on deep, fertile loams that are well supplied with organic matter. The plant is tolerant to soil acidity and does best on a slightly to medium acid soil. If the crop is to be grown for the early market, a light sandy loam with a southern exposure should be selected.

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Fertile land only should be selected for rhubarb culture, but it is also usually necessary to apply liberal quantities of both manure and fertilizer. As a preliminary treatment before planting, a broadcast application of 20 to 30 tons of manure and 1,500 to 2,000 pounds of a complete fertilizer per acre is recommended. In view of the present difficulty in obtaining manure the organic content of the soil may often be increased by growing soil-improvement crops upon it and turning them under. A fertilizer containing 5 percent of nitrogen, 10 percent of phosphoric acid, and 4 to 6 percent of potash is suitable. In addition to this preliminary treatment, the mixing of manure with the soil under the rows or hills before planting is advisable. It is also desirable to make annual applications of manure and fertilizer. From 15 to 20 tons of manure and 1,000 pounds per acre of a 5–10–4 fertilizer are usually sufficient. On highly organic soils, such as peat and muck, it is possible to grow good rhubarb without manure, but liberal applications of fertilizer each season are necessary.

Propagation, Planting, and Varieties

Rhubarb is usually propagated from divisions of the crowns formed during previous seasons. The pieces for planting are obtained by dividing the crowns, preferably in the early spring, leaving as much root as possible with each strong eye or bud. Sometimes rhubarb is propagated from seed, but it rarely proves satisfactory because seeds usually produce only a small percentage of plants like the mother plant. For this reason the use of crown divisions is recommended.

The rows should be far enough apart to allow easy horse tillage, not less than 5 feet for strong-growing varieties on good land. The plants should be spaced from 3 to 4 feet apart in the rows, the crowns set 4 inches below the surface so that they will be covered with 2 or 3 inches of soil, the soil firmed about the roots with the feet.

The varieties most commonly grown are Victoria, Linnaeus, and Mammoth Red. Recently two new varieties, the McDonald and Cherry Red, have become popular, the McDonald in Minnesota and nearby States and the Cherry Red in California and other Pacific Coast States.

Cultivation

Shallow cultivation often enough to thoroughly control weeds is all that is required. Soon after the ground is frozen it is well to cover the rows with strawy manure. Instead of mulching in this manner, some growers hill up the rows by means of a plow and then apply a light mulch of manure. These ridges are worked down during early spring, and the manure incorporated in the soil. In many cases an application of strawy manure is made to the rows during the early spring or immediately after the ridges are worked down. This material protects the plants from cold and encourages early growth. Mulching of this character is often done in lieu of the yearly application of manure, as suggested under Soil, Fertilizer, and Manure.

In order to renew rhubarb plantations, the plants are sometimes taken up and reset. It is usually a better practice to divide the crowns during the third or fourth year by removing the soil from one side of the hill with a plow or with a sharp spade and cutting through the crown, leaving three or four buds undisturbed in the hill. If desired, the portion removed may be set out for increasing the rhubarb patch or field. This work should be done in the fall or early in the spring.

In the home garden the rhubarb hills should be thinned, as suggested; otherwise the crowns will become so large and so crowded with small buds that only slender, undesirable stalks will be produced.

Diseases and Insects

Foot rot is the most serious disease affecting rhubarb. It is caused by a fungus which attacks and rots the base of the stalks, causing them to fall over, and often kills the plants. The best remedy available where this disease occurs is to remove the affected plants and to spray the base of the stalks in the healthy hills with bordeaux mixture before the disease appears.

There is one insect that may give trouble, the rhubarb curculio. This is a rusty snout beetle about three-fourths of an inch long. It bores into the stalks, crowns, and roots. It also attacks the wild dock, which may grow in the vicinity. This insect may be kept in control by hand picking, by burning all infested plants, and by destroying all the wild dock growing in the neighborhood of the rhubarb patch in July, after the beetles have laid their eggs.

Harvesting and Marketing

No leafstalks should be pulled the first year from newly set plants, and only a few should be removed the second year. The commercial rhubarb season is short, rarely extending over more than 2 months. Only the largest and best stalks should be harvested. The leafstalks separate readily from the crown and are easily harvested by grasping them near the base and pulling slightly to one side in the direction in which the stalk stands. The smaller stalks are often thinned somewhat to permit better development of those remaining. After the market season of rhubarb is past, the plants are allowed to grow as they will, except for the removal of the seedstalks, which should be cut off as soon as they arise, in order to conserve the energy of the plant for the production of foliage and roots. A heavy crop of rhubarb in any year depends to a large extent on the strong leaf growth of the year before.

From two to five stalks, depending on their size, are tied in a bunch for market. Good strong plants should produce about 3,000 dozen bunches per acre each year. United States standards for field-grown rhubarb have been established and copies can be obtained by writing the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

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